

Open-Response

22. Growing Rates

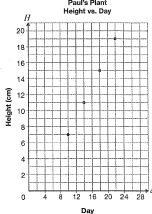
Lucia and Paul each have a plant. Both plants grow at a constant rate.

Lucia records information about the height of her plant in a table, and Paul graphs his results as shown below.

Lucia's Plant

Day	Height (cm)
4	8
7	10
10	12
13	14

Paul's Plant
Height vs. Day



Whose plant is growing faster?
Circle one: Lucia's Paul's
Justify your answer.

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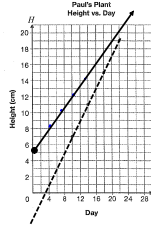
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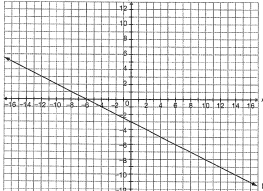
Steeper Slope - Graph Paul

$m = \frac{12-8}{7-4} = \frac{4}{3}$ $m = \frac{11-7}{14-10} = \frac{4}{4} = 1$

$\frac{4}{3}$ vs 1

23. Lovely Lines

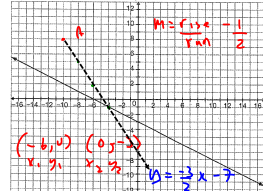
Line 1 is shown on the grid below.



Graph Line 2 on the same grid so that it passes through A(-10, 8) and has a slope that is three times the slope of Line 1.
Justify your answer.

23. Lovely Lines

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Graph Line 2 on the same grid so that it passes through A(-10, 8) and has a slope that is three times the slope of Line 1.
Justify your answer.

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - 8}{0 - (-10)} = \frac{-10}{10} = -1$

$m = -1$

$m = 3 \times -1 = -3$

$m = -3$